About the Conduit® AP 300 Series Access Point

Conduit AP 300 Series (MTCAP3) securely connects thousands of LoRaWAN® wireless IoT sensors to the cloud using the LoRaWAN® protocol. The Conduit AP Access Point packet forwarding gateway offers Ethernet and Cellular Wide Area Networks seamless connectivity options to connect to Cloud based applications in centrally located data centers.

Intended Use

The Conduit AP 300 Series is designed for indoor use and industrial applications, such as smart buildings, retail spaces, agricultural environments, and other deployments where reliability and secure long-range data communication is essential.

MTCAP3 Ordering Options

To find information about ordering options, go to https://multitech.com/all-products/cellular/cellular-gateways/conduit-ap-300-series/#models.

4G LTE CAT 4 Access Points

Ordering Part Number	Description	LoRa Region
MTCAP3-EN-A23UEA-LWM.R1	Ethernet-only mPower programmable access point with LoRa 915 MHz and external LoRa antenna	Australia Canada New Zealand United States
MTCAP3-EN-A23UEA-DWM.R1	Ethernet-only mPower programmable access point with LoRa 915 MHz	
MTCAP3-LNA7D-A23UEA-LUM.R1	LTE Cat 4 mPower programmable access point with LoRa 915 MHz and external LoRa antenna	Canada United States
MTCAP3-LNA7D-A23UEA-DUM.R1	LTE Cat 4 mPower programmable access point with LoRa 915 MHz	
MTCAP3-L4G2D-A23UEA-DUM	LTE Cat 4 mPower programmable access point with LoRa 915 MHz and internal LoRa antenna	Australia Canada New Zealand European Union United Kingdom United States
MTCAP3-L4G2D-A23UEA-LUM	LTE Cat 4 mPower programmable access point with LoRa 915 MHz and external LoRa antenna	
MTCAP3-L4G2D-A23EEA-DEM	LTE Cat 4 mPower programmable access point with LoRa 868 MHz and internal LoRa antenna	
MTCAP3-L4G2D-A23EEA-LEM	LTE Cat 4 mPower programmable access point with LoRa 868 MHz and external LoRa antenna	
MTCAP3-LEU7-A23EEA-LEM.R1	LTE Cat 4 mPower programmable access point with LoRa 868 MHz and external LoRa antenna	European Union United Kingdom
MTCAP3-LEU7-A23EEA-DEM.R1	LTE Cat 4 mPower programmable access point with LoRa 868 MHz	
MTCAP3-EN-A23EEA-LEM.R1	Ethernet-only mPower programmable access point with LoRa 868 MHz and external LoRa antenna	
MTCAP3-EN-A23EEA-DEM.R1	Ethernet-only mPower programmable access point with LoRa 868 MHz	

Access Points with BACnet

Ordering Part Number	Description	LoRa Region
MTCAP3-L4G2D-A23UEA-LUM-BAC	LTE Cat 4 mPower/BACnet programmable access point with LoRa 915 MHz and external LoRa antenna	Canada United States
MTCAP3-LNA7D-A23UEA-LUM-BAC.R1	LTE Cat 4 mPower/BACnet programmable access point with LoRa 915 MHz and external LoRa antenna	
MTCAP3-EN-A23UEA-LWM-BAC.R1	Ethernet-only mPower/BACnet programmable access point with LoRa 915 MHz and external LoRa antenna	
MTCAP3-L4G2D-A23EEA-LEM-BAC	LTE Cat 4 mPower/BACnet programmable access point with LoRa 868 MHz and external LoRa antenna	European Union United Kingdom
MTCAP3-LEU7-A23EEA-LEM-BAC.R1	LTE Cat 4 mPower/BACnet programmable access point with LoRa 868 MHz and external LoRa antenna	
MTCAP3-EN-A23EEA-LEM-BAC.R1	Ethernet-only mPower/BACnet programmable access point with LoRa 868 MHz and external LoRa antenna	

Specifications

Specifications for 915 MHz Models

Category	Description
General	
Standards	LoRaWAN 1.0.4 specifications
	LTE FDD Cat 4, 3GPP release 11 compliant
	WCDMA/GSM fallback
LoRa radio frequency	915 MHz ISM band
Cell radio frequency bands (MHz) for L4G2D	4G LTE FDD (Europe): B3 (1800), B7 (2600), B8 (900), B20 (800)
	2G (Europe fallback): B2 (1900), B3 (1800), B5 (850), B8 (900)
	4G LTE FDD (AT&T): B2 (1900), B4 (AWS1700), B12 (700), B14 (700)
	4G LTE FDD (Verizon): B2 (1900), B4 (AWS1700), B13 (700)
	4G LTE FDD (Anterix): B8-US (900)
	4G LTE FDD (APAC): B1 (2100), B9 (1800), B18 (800), B19 (850), B26 (850), B28 (700)
	3G: B1 (2100), B2 (1900), B4 (AWS1700), B5 (850), B6, B8 (900), B19 (850)
	2G: B2 (1900), B3 (1800), B5 (850), B8 (900)
	4G LTE FDD bands: B25 (1900)
Cell radio frequency bands (MHz) for LNA7D	LTE FDD: B2 (1900), B4 (AWS1700), B5 (850), B12 (700), B13 (700), B25 (1900), B26 (850)
	WCDMA: B2 (1900), B4 (AWS1700), B5 (850)
Physical Description	
Dimensions	165 (6.5) × 135 (5.3) × 36 (1.4) mm (in)
Weight	0.11 kg (0.24 lb) without antenna
Chassis	PC-ABS
Power Requirements	
Operating voltage	100 - 220v AC 50/60 HZ .5A - power supply that is capable of delivering 5 VDC @ 2.5 Amp. Comes with changeable blades.
LoRa tx power	Australia and North America: 29.1 dBm maximum EIRP *(includes external LoRa antenna)*
	Japan: 14 dBm maximum EIRP *(includes external LoRa antenna)*
	New Zealand: 29.9 dBm maximum EIRP *(includes external LoRa antenna)*
Environment	
Operating temperature[1]	0 °C to 70 °C (32 °F to 158 °F)
Storage temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Humidity	20%-90%, RH non-condensing
Certifications	
FCC/ISED/AU/NZ Compliance EMC	FCC 15.107 Class B
	FCC 15.109 Class B
	FCC 15.109(g) Class B
	ICES-003 Issue 7 Class B
	AS/NZS CISPR 32 Class B
LoRa	FCC 15.247
	RSS-Gen issue 5
	RSS-247 Issue 3
	AS/NZS 4268

1 UL listed at 40 °C, limited by AC power supply. Product has been tested to 70 °C excluding power supply.

Category	Description
MPE (RF exposure)	FCC 2.1091
	RSS-102 issue 6
	AS/NZS 2772
Cell radio	CE/RED
Safety compliance	UL / IEC 62368-1: 2018 3rd Edition (see Declaration of Conformity for details)

Specifications for 868 MHz Models

Category	Description
General	
Standards	LoRaWAN 1.0.4 specifications
	LTE FDD Cat 4, 3GPP release 11 compliant *(LNA7/LEU7 models),* 3GPP release 10 compliant *(L4G2D models)*
	WCDMA/GSM fallback
LoRa radio frequency	868 MHz ISM
Cell radio frequency bands (MHz) for L4G2D	4G LTE FDD (Europe): B3 (1800), B7 (2600), B8 (900), B20 (800)
	2G (Europe fallback): B2 (1900), B3 (1800), B5 (850), B8 (900)
	4G LTE FDD (AT&T): B2 (1900), B4 (AWS1700), B12 (700), B14 (700)
	4G LTE FDD (Verizon): B2 (1900), B4 (AWS1700), B13 (700)
	4G LTE FDD (Anterix): B8-US (900)
	4G LTE FDD (APAC): B1 (2100), B9 (1800), B18 (800), B19 (850), B26 (850), B28 (700)
	3G: B1 (2100), B2 (1900), B4 (AWS1700), B5 (850), B6, B8 (900), B19 (850)
	2G: B2 (1900), B3 (1800), B5 (850), B8 (900)
	4G LTE FDD bands: B25 (1900)
Cell radio frequency bands (MHz) for LEU7	LTE FDD: B1 (2100), B3 (1800), B7 (2600), B8 (900), B20 (800), B28A (700)
	WCDMA: B1 (2100), B8 (900)
	GSM: B3 (1800), B8 (900)
Physical Description	
Dimensions	165 (6.5) × 135 (5.3) × 36 (1.4) mm (in)
Weight	0.11 kg (0.24 lb) without antenna
Chassis	PC-ABS
Power Requirements	
Operating voltage	100 - 220v AC 50/60 HZ .5A - power supply that is capable of delivering 5 VDC @ 2.5 Amp. Comes with changeable blades.
LoRa tx power[2]	Internal antenna models: 12.3–24.8 dBm maximum ERP; maximum ERP is 12.3 dBm for whole band, except 24.8 dBm at 869.525 MHz
	External antenna models: 13.0–25.5 dBm maximum ERP; maximum ERP is 13.0 dBm for whole band, except 25.5 dBm at 869.525 MHz
Environment	
Operating temperature[3]	0 °C to 70 °C (32 °F to 158 °F)
Storage temperature	-40 °C to 85 °C (–40 °F to 185 °F)
Humidity	20%-90% RH, non-condensing
Certifications	
EMC	EN55032 / EN55035 / (CE/UKCA)

2 ERP = EIRP – 2.15 dB

3 UL listed at 40 °C, limited by AC power supply. Product has been tested to 70 °C excluding power supply.

Category	Description
LoRa	EN 300 220-2
	EN 301 489-1
	EN 301 489-3
MPE (RF exposure)	EN 62311
Cell radio	FCC 22H, 24E, 27, 90
ROHS	EN / IEC 63000
Safety compliance	UL / IEC 62368-1: 2018 3rd Edition (see Declaration of Conformity for details

mPower™ Edge Intelligence

mPower™ Edge Intelligence is an embedded software offering to deliver programmability, network flexibility, enhanced security, and manageability for scalable Industrial Internet of Things (IIoT) solutions. mPower represents the unification and evolution of well-established MultiTech smart router and gateway firmware platforms.

mPower Edge Intelligence simplifies integration with a variety of popular upstream IoT platforms to streamline edge-to-cloud data management and analytics, while also providing the programmability and processing capability to execute critical tasks at the edge of the network to reduce latency; control network and cloud services costs, and ensure core functionality – even in instances when network connectivity may not be available. In response to evolving customer security requirements, mPower Edge Intelligence incorporates a host of new security features including signed firmware validation, secure boot, new Cloud management, programmability of custom apps, Digital I/O, and more.

Accessories

To find information on accessories for your product, go to https://multitech.com/all-products/accessories/.

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